

Environment – Quarterly Report – 3rd Quarter

Groundwater and surface water monitoring system

Monitoring system of underground waters is centred on plant operation impact on underground waters. The surface waters quality is monitored in Korcina stream at two stream profiles.

Index	Jedn	SM1	SM2	SM3	SM4	SM5	PM1	PM2	PM4	PM7	PM8	PM9	PM10	PM11	PV1	PV2
Level	m	94.7	6.63	6.38	6.59	6.27	5.97	5.91	9.10	6.96	7.98	7.72	7.23	6.77		
Temperature	°C	0.16	12.4	14.0	11.6	11.3	12.4	13.2	12.3	13.4	12.6	15.1	12.9	13.5	9.6	
pH	—		7.4	7.41	7.41	7.37	7.31	7.31	7.29	7.33	7.36	7.41	7.3	7.36	7.92	
Conductivity	mS/m	11.1	66.6	70.5	70.9	71.4	62.8	66.1	69.1	62.0	64.7	68.6	70.8	71.2	57.5	
COD-Mn	mg/l	28.3	0.29	<0.05	0.13	0.13	0.32	0.29	0.6	0.32	0.44	0.41	0.32	0.41	13.20	
BOD-5	mg/l	0.08														
Nitrates	mg/l	<0.01	11.1	21.3	22.8	25.3	9.5	15.3	26.7	10.7	10.0	15.7	25.0	22.7	<0.11	
Sulfates	mg/l	0.02	26.6	30.0	28.6	28.6	23.7	30.6	29.5	24.0	23.4	27.7	30.6	32.8		
Ammonium ions	mg/l	0.002	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02		
Nitrites	mg/l	94.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Phosphates	mg/l	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Total chromium	mg/l		0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.006	0.002	<0.001	0.007		

Index	Jedn.	SM1	SM2	SM3	SM4	SM5	PM1	PM2	PM4	PM7	PM8	PM9	PM10	PM11	PV1	PV2
Chromium Cr6	mg/l	<0.002														
Cadmium	mg/l	0.006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Manganese	mg/l	<0.004	0.013	0.005	0.068	0.006	<0.005	<0.005	<0.005	<0.005	0.016	0.005	0.01	0.009		
Copper	mg/l	0.003	0.006	0.004	0.006	0.004	0.011	0.008	0.004	0.006	0.011	0.005	0.009	0.005		
Nickel	mg/l	<0.001	0.003	0.003	0.004	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.003	0.002		
Lead	mg/l	<0.002	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	<0.001		
Zinc	mg/l	0.051	0.015	0.013	0.03	0.011	0.02	<0.002	0.003	0.002	0.018	0.015	0.026	0.026		
Iron	mg/l	0.055	0.088	0.088	0.996	0.122	0.066	<0.005	<0.005	<0.005	0.277	0.069	0.017	0.199		
NEL-IR *	mg/l	0.08	0.09	0.05	0.05	0.05	0.07	0.05	0.07	0.05	0.06	0.06	0.05	0.06	0.07	
Hydrocarbon index	mg/l	<0.10	<0.10	0.13	<0.10	0.17	0.16	0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		
Anionactive tensides	mg/l															
Benzene	ug/l	<0.05	<0.05	<0.05	0.2	0.5	<0.05	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Toluene	ug/l	<0.05	<0.05	0.2	<0.05	0.2	<0.05	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Dimethylbenzenes	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
AOX	ug/l															
TOC	mg/l	<2	<2	<2	2.4	2	2.23	2.17	2.47	<2	2.21	<2	<2	<2	7.58	
Mercury	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
Soluble oxygen	mg/l														8.30	

Indexes of industrial waste water contamination

Quantity of industrial waste water discharged into the public sewerage: 80,537.00 m³

Index	pH	COD _{Cr}	BOD ₅	Soluble Substances	N total	P total
Unit		mg/l	mg/l	mg/l	mg/l	mg/l
Public sewerage limit	6-9	800	400	2,500	70	10
Concentration of pollutants*	7.75	125	30.30	606	6.39	0.14

* Indexes are set by qualified spot sample



Air protection

KIA Motors Slovakia, s.r.o. is operating following air pollution sources dividing based on public notice No.706/2002 Coll.:

Large air pollution source	Middle air pollution sources
Paint Shop	Press Shop
Vehicle process center (VPC)	Body Shop
Tank Farm	Assembly Shop
	Engine Shop
	Canteen
	Main office
	Section 6(Utility buildings)
	Fuel Station

During the trial operation there was realized the first authorized emission measurement on the air pollution sources that has obligation of emission measurement based on legislation. The results confirmed the observance of emission limits by all measured air pollution sources.



Waste management

KIA Motors Slovakia s.r.o. is generating hazardous and other wastes by car production. Their amount and disposal method in the 3rd quarter 2008 is described in following table.

Wastes	Amount in t	Utilization in %	Disposal in %
Hazardous	2,212.07	4.00%	96.00%
Others	7,503.33	98.00%	2.00%
Total	9,715.40	77.00%	23.00%